ER-2 #809 09/16/13

Aircraft: ER-2 - AFRC #809 (See full schedule)
Flight Number: 13-9066
Payload Configuration: SEAC4RS
Nav Data Collected: Yes
Total Flight Time: 8 hours
Submitted by: Chris Miller on 09/17/13
Flight Segments:

From:	EFD	**To:**	EFD
Start:	09/16/13 14:55 Z	**Finish:**	09/16/13 22:55 Z
Flight Time:	8 hours		
Log Number:	132301	**PI:**	Kent Shiffer
Funding Source:	Hal Maring - NASA - SMD - ESD Radiation Science Program		
Purpose of Flight:	Science		
Comments:	The objective for this flight was to fly as far south as possible to study stratospheric structure, and then to fly west and north into the remnants of Tropical Storm Ingrid observing cirrus outflow along the Mexican coast. The ER-2 made several dips from 65K ft. to between 40K and 50K ft. for in situ sampling. The aircraft returned requiring maintenance on flap drive boots. Work is also required on the SSFR instrument. The aircraft will be ready for the next flight on 9/18.		

Flight Hour Summary:

	132301
Flight Hours Approved in SOFRS	166
Total Used	164.6
Total Remaining	1.4

132301 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
08/01/13	13-9048	Check	3	3	163	
08/02/13 - 08/03/13	13-9049	Science	6.5	9.5	156.5	
08/06/13 - 08/07/13	13-9050	Science	8.4	17.9	148.1	
08/08/13	13-9051	Science	7.2	25.1	140.9	
08/12/13	13-9052	Science	7.9	33	133	
08/14/13	13-9053	Science	6	39	127	
08/16/13	13-9054	Science	7.8	46.8	119.2	
08/19/13	13-9055	Science	8.1	54.9	111.1	
08/21/13	13-9056	Science	7.3	62.2	103.8	
08/23/13	13-9057	Science	7.7	69.9	96.1	
08/27/13	13-9058	Science	7.2	77.1	88.9	
08/30/13	13-9059	Science	7.4	84.5	81.5	
09/02/13	13-9060	Science	8.2	92.7	73.3	
09/04/13	13-9061	Science	8.4	101.1	64.9	
09/06/13 - 09/07/13	13-9062	Science	8	109.1	56.9	
09/09/13 - 09/10/13	13-9063	Science	8.1	117.2	48.8	
09/11/13 - 09/12/13	13-9064	Science	7.6	124.8	41.2	
09/13/13	13-9065	Science	8	132.8	33.2	
09/16/13	13-9066	Science	8	140.8	25.2	

09/18/13	13-9067	Science	7.9	148.7	17.3
09/22/13	13-9068	Science	8.1	156.8	9.2
09/23/13	13-9069	Science	7.8	164.6	1.4

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Related Science Report:

SEAC4RS - ER-2 #809 09/16/13 Science Report

Mission: SEAC4RS
Mission Summary:

Flight Report – SEAC4RS ER-2, September 16, 2013

Prepared by: Richard Ferrare (richard.a.ferrare@nasa.gov)

Purpose of flight: The science goals for this flight were to: 1) acquire remote sensing data over cirrus, 2) transit far south to acquire in situ trace gas measurements associated with colder temperatures and observe aging of air, 3) observe sub-visual cirrus, 4) measure outflow from TS Ingrid, 5) perform MMS calibration maneuvers.
Pilot: Stu Broce

Takeoff: 9:55 CDT

Duration: 8.0 hours

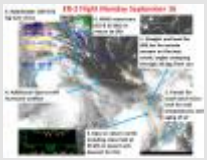
Notes:

The ER-2 flew first SE over the Gulf over clear skies on the way southeast toward the Caribbean. At a latitude of about 23 deg, the ER-2 headed southeast along the 900 km leg designed for the remote sensors to observe cirrus and convective clouds. This leg went just east of the Yucatan Peninsula and east of Honduras. There were extensive clouds along this leg and CPL observed extensive cirrus clouds. However, the CPL measurements did not give an indication of subvisual cirrus along this leg. After reaching the end of this leg at a latitude of about 15.5 deg, the ER-2 reversed course and flew NNW. Along this course the aircraft performed two dips; the first dip went down to about 43 kft but could not go lower because of ATC directions. The second dip went down to about to about 40 kft. In both dips there were slight (2 min) delays at about 50 kft. At a latitude of about 23 deg, the ER-2 then flew west toward TS Ingrid and performed another dip to about 40 kft. At the end of this westbound leg, the ER-2 performed a 150 km level leg run designed for AirMSPI sensing. The ER-2 then turned north and few back toward Ellington. Along the way, the ER-2 made a final dip down to about 43 kft. On the descent into Ellington, the ER-2 performed full MMS maneuvers at 62 kft and 52 kft.

Aircraft and instruments: All instruments appear to have worked nominally as far as limited in-flight and quick-look analyses showed. All instruments are ready for the next flight.

Images:

ER-2 September 16



Read more

File:
seac4rs_er2_16_Sep.pdf
Submitted by: Richard Ferrare on 09/17/13

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